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Headphone reproducing apparatus

(57) A headphone reproducing apparatus creates a virtual sound. A listener feels as if a sound came from a virtual sound source that imaginarily exists in a space apart from the listener. A delay circuit delays a first-channel input audio signal and a second-channel input audio signal by predetermined delay times. A low-pass filter changes frequency characteristics of the first- and second-channel input signals to predetermined fre-

quency characteristics. A multiplier changes sound levels of the first- and second-channel input audio signals to predetermined sound levels. The delay circuit, low-pass filter, and multiplier are connected in series to each other. A headphone reproduces the first- and second-channel input signals processed by the delay circuit, low-pass filter, and multiplier as the sound that comes from the virtual sound source.

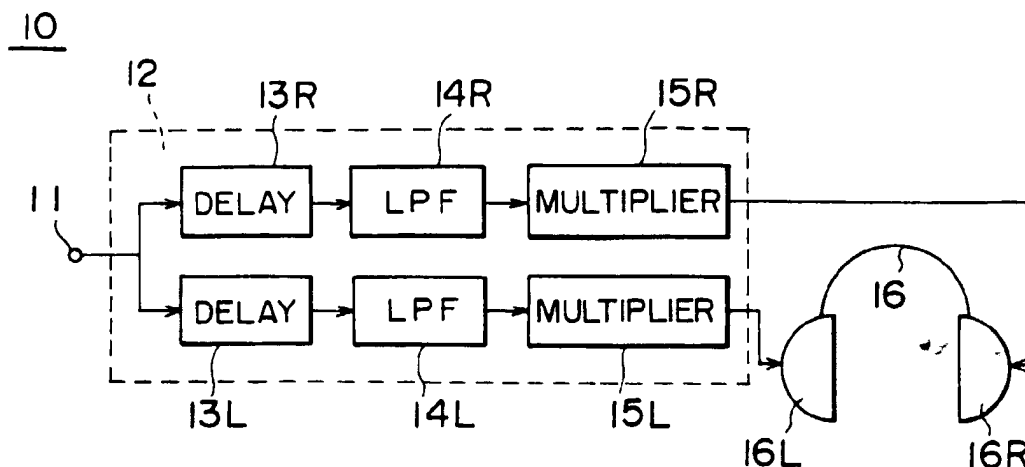


FIG. 4



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 96 30 3604

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15 April 1999	Examiner Zanti, P
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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